

**A B S T R A C T**

10       The present invention concerns a process for dissolving ruthenium deposits that are present on a surface and a process for decontaminating the internal circuits of nuclear fuel reprocessing plants using the said dissolution process.

15       The process according to the invention comprises bringing the said surface into contact with an aqueous solution of perruthenate, with the said aqueous solution having a pH equal to or greater than 12, so that the ruthenium is oxidised.

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Figure 1.